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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,522	06/10/2005	Michael Ganser	21295.0106US1 (E0664US)	3557
29127	7590	02/22/2006	EXAMINER	
HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421			STEPHENS, SCOTT H	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5/4

Office Action Summary	Application No. 10/538,522	Applicant(s) GANSER ET AL.	
	Examiner Scott H. Stephens	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claim 5 is objected to because of the following informalities: Line 2 contains "[[4]]" which appears to be a typo and the examiner suggests it be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In lines 2 and 3, the limitation "directed through a lens that exhibits a pupil lens on a pupil plane" is unclear. Additionally, sufficient further clarification does not appear in the specification. Examiner suggests either amending claim 1 to read "directed through a lens ~~that exhibits a pupil lens on a pupil plane~~, along an illumination beam path" (lines 2 and 3) or to amend the claim language to clarify the limitations of a pupil lens and a pupil plane. Appropriate correction is required.

Claims 2-16 are objected to as depending from an objected parent claim.

For the purpose of examination, the aforementioned indefinite limitations of claim 1, discussed above, will be interpreted to mean that an illumination light is directed through a lens and further through a pupil lens which corresponds to a plane observed by a pupil.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6-9, 11, 13, and 16 are rejected under 35 U.S.C. 102(b) as being disclosed by Yamaguchi et. al. (US 6,636,353).

Regarding claim 1, Yamaguchi discloses a reflected-light microscope comprising a light source (1 or 14) to generate an illumination light beam (fig. 1) that can be directed through a lens that exhibits a pupil lens on a pupil plane (col. 4 lines 54-58), along an illumination beam path and onto a sample (fig. 1), and an imaging optic (9a) that generates an optically corresponding plane to the pupil plane, in which case at least one attenuation element (4a/4b or 16a/16b) that acts in an essentially uniform manner over the entire cross-section of the illumination light beam can be introduced (col. 5 lines 42-46 and lines 53-57) into the illumination beam path on the optically corresponding plane.

Regarding claim 3, Yamaguchi discloses the attenuation element exhibits a color filter (col. 4 lines 15-24 and paragraph bridging columns 4 and 5).

Regarding claim 6 Yamaguchi discloses the microscope wherein at least one attenuation element is arranged in a storage mechanism (col. 4 lines 15-24 and paragraph bridging columns 4 and 5).

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Regarding claim 7, Yamaguchi discloses the storage unit to be a rotatable turret (col. 5 lines 42-46 and lines 53-57).

Regarding claim 8, Yamaguchi discloses wherein the storage mechanism holds several attenuation elements that exhibit different degrees of attenuation (col. 4 lines 15-24 and paragraph bridging columns 4 and 5). Examiner notes that while Yamaguchi only explicitly discloses one element of the six filters to be a ND filter, it is suggested (col. 4 lines 19-20 and 65-66) that multiple ND filters of varying attenuation be available in the storage mechanism. Examiner further notes that even without this suggestion, Yamaguchi's disclosure of both an ND and color filter and these filtering elements allow for different degrees of attenuation.

Regarding claim 9, Yamaguchi discloses wherein the storage mechanism exhibits a neutral position (col. 4 lines 15-17) that permits the illumination light beam to pass unaffected.

Regarding claim 11, Yamaguchi discloses the microscope wherein a drive mechanism is provided that controls the storage mechanism.

Regarding claim 13, Yamaguchi discloses that a control mechanism (19) is provided that controls the drive mechanism.

Regarding claim 16, Yamaguchi discloses that the reflected-light microscope is a fluorescence microscope (col. 5, lines 10-15).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 6,636,353) in view of Ebbesen et al. (US 6,052,238).

Regarding claim 2, although Yamaguchi states that desired filters can be inserted and removed (col. 4, lines 23-24) into a storage mechanism, he lacks specific mention of inserting an attenuation element that exhibits a grate, sieve, or pinhole structure.

Ebbesen teaches a microscope with filters exhibiting a grate structure (col. 2, lines 38-41) and further teaches that these filters are well known (col. 2, lines 47-52).

At the time of invention, it would have been obvious to one of ordinary skill in the art to insert Ebbesen's well-known grate structure filters into Yamaguchi's storage mechanism. The motivation for doing this would have been filter IR light as suggested by Ebbesen (col. 2, lines 38-52).

Regarding claim 5, Ebbesen discusses lithography fabrication techniques however; the lithography limitation of claim 5 is a product-by-process limitation and thus is not given significant patentable weight. In product-by-process claims, "once a product appearing to be substantially identical is found and a 35 U.S.C.

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102/103 rejection [is] made, the burden shifts to the applicant to show an unobvious difference." MPEP 2113. This rejection under 35 U.S.C. 102/103 is proper because the "patentability of a product does not depend on its method of production." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 6,636,353) in view of Bourdelais et al. (US 2004/0027672).

Although Yamaguchi states that desired filters can be inserted and removed (col. 4, lines 23-24) into a storage mechanism, he lacks specific mention of inserting an attenuation element that exhibits a diffusion disk.

Bourdelais teaches an attenuation element that exhibits a diffusion disk (paragraph 59) which can be used in a microscope (paragraph 120). At the time of invention, it would have been obvious to one of ordinary skill in the art to insert Bourdelais' diffusion disk into Yamaguchi's storage mechanism. The motivation for doing this would have been to yield a homogeneously illumination field as suggested by Bourdelais (paragraph 120).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 6,636,353) in view of Amann et al. (US 6,563,113).

Although Yamaguchi states that desired filters can be inserted and removed (col. 4, lines 23-24) into a storage mechanism, he lacks specific mention of the storage mechanism exhibiting a blocking position that interrupts the illumination beam path.

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Amann teaches a microscope with a blocking filter in both his admission of prior art (col. 1 lines 32-36) and in the teaching Amann's invention (col. 4 lines 1-6) where he discloses that the blocking filter that interrupts the illumination beam path can be mounted on a disk or slide filter changer. At the time of invention, it would have been obvious to one of ordinary skill in the art to insert Amann's insertable blocking filter into Yamaguchi's storage mechanism. The motivation for doing this would have been to prevent the observation beam path from being flooded with the excitation light as suggested by Amann (col. 3 lines 24-38).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 6,636,353) in view of Fay et al. (US 5,009,488).

Although Yamaguchi teaches a driving element for a filter turret (col. 5, lines 45-47), he is silent on the driving element being a stepping motor.

Fay teaches a drive mechanism that comprises a stepping motor (col. 4 lines 6). At the time of invention, it would have been obvious to one of ordinary skill in the art to include Fay's stepping motor in Yamaguchi's driving element. The motivation for doing this would have been to assist in the precise rotation of the storage mechanism.

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 6,636,353) in view the applicant's admission of prior art.

Although Yamaguchi teaches a controller interfaced with multiple driving elements of a microscope, he is silent on light being automatically blocked when an optical element is being exchanged.

However this automation is known. Evidence of this is provided in the prior art disclosed in the instant application (page 2 or the specification), wherein is disclosed at least one exchangeable optical element (page 2, lines 12-13) is arranged in the illumination beam path, in which case the illumination light beam is automatically attenuated or blocked while the optical element is being exchanged (page 2, lines 14-15).

Therefore, at the time of invention, it would have been obvious to one of ordinary skill in the art to program Yamaguchi's controller to provide the automation disclosed in the description of prior art. The motivation for doing this would have been to prevent an undesirable amount of light from being directed into the objective lens as suggested by Watanabe et al. (US 6,384,967) (see abstract).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Green (US 6,724,419) teaches a computer controlled fluorescent microscope.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott H. Stephens whose telephone number

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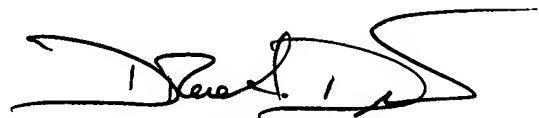
is 571-272-3113. The examiner can normally be reached on Monday-Friday
7:30am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax
phone number for the organization where this application or proceeding is
assigned is 571-273-8300.

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free).

Friday, February 17, 2006
Scott H. Stephens

SHS



DREW A. DUNN
SUPERVISORY PATENT EXAMINER